

a disgrace to a country like this, which professes to be pre-eminently practical, that so little attention should have hitherto been paid to furnishing the rising generation with some sound general information on a subject which should be of so much importance in a commercial community. The knowledge of "common things" does, however, at present appear to be making some little progress amongst us, and the present little work, which contains a brief account of the principal commercial products of the vegetable kingdom, forms a welcome addition to our scanty stock of elementary books on these subjects.

It appears to have been brought out under the auspices of the "Department of Science and Art," and we presume will be adopted as a class-book in those educational establishments which derive their inspiration from that source. The conception of the work is good, and appears to have been well and carefully carried out. We must observe, however, that the author's acquaintance with chemistry appears to be rather imperfect;—at least on those occasions where he has, unnecessarily as it appears to us, introduced any chemical information, his statements are generally calculated rather to mislead than to instruct the student. Thus, at p. 145, we are informed that the non-oxygenated essential oils "are very inflammable, burning like coal-gas, of which they appear to be a mere concentration;" and again, at p. 140, we are told that "oleine and stearine are oxides of a peculiar substance called by chemists *glyceryle*, . . . in other words, oleine consists of an acid called *oleic acid* and this sweet substance *glyceryle*, whilst stearine is a compound of *stearic acid* and *glyceryle*,"—from which it would appear that the author has no very definite idea of what is meant by an oxide.

It is greatly to be regretted that such errors as these should have been allowed to creep into a book, which, in other respects, has certainly much to recommend it, and it is not much to the credit of the "Department of Science and Art," whose head certainly has some pretensions to a knowledge of chemistry, that blunders of this nature are to be detected in a work published under their auspices. It is not sufficient that an educational work should be unimpeachable as regards the particular subject of which it treats; care must also be taken that its pages are not made the means of inculcating false notions upon those branches of science which are only incidentally referred to.

We may add that the work is illustrated with twenty lithographic plates, representing some of the more important plants, and a few of the commercial products referred to in the text: these appear to be exceedingly characteristic.

*The Entomologist's Annual for 1855.* Edited by H. T. STANTON. Second Edition. London, 1855. Van Voorst. 12mo.

It is not long since we noticed, in the pages of this Journal, the appearance of the first edition of this little work, and we must congratulate the editor on his miscalculation of the number of his

readers, since they have enabled him so speedily to bring out a new and improved edition.

The observations which we made in our previous notice will apply equally to the present edition, for the greater portion of the work is essentially the same, the additions consisting principally of some excellent directions for collecting and preserving Coleoptera and Lepidoptera by Mr. Wollaston and the Editor, and an address by the latter "to the young entomologists at Eton, Harrow, Winchester, Rugby, and at all other schools." In this Mr. Stainton is at great pains to point out to the young idea that the study of entomology is by no means the contemptible occupation that so many consider it, but that, on the contrary, it is not only pleasing and instructive in itself, but may also be of the greatest service in training the mind to habits of observation, and may even act as an incentive to the acquisition of much useful knowledge which would otherwise be regarded as desperate drudgery. We can agree most cordially with most of Mr. Stainton's propositions, although we fear, with himself, that he has preached "too long a sermon" to his younger readers, and we trust that his enthusiasm may meet its reward in raising up a new generation of entomologists. We are glad to see that a few pages have been devoted to notices of important new works on entomology, and hope that in future years this section of the work will receive more of the editor's attention.

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## PROCEEDINGS OF LEARNED SOCIETIES.

### ROYAL SOCIETY.

March 1, 1855.—Charles Wheatstone, Esq., V.P., in the Chair.

"On the Structure, Functions, and Homology of the Manducatory Organs in the Class Rotifera." By Philip Henry Gosse, A.L.S.

In this paper the author institutes an examination of the manducatory organs in the class Rotifera, in order to show that the various forms which they assume can all be reduced to a common type. He further proposes to inquire what are the real homologues of these organs in the other classes of animals, and what light we can gather, from their structure, on the question of the zoological rank of the Rotifera.

After an investigation of the bibliography of the class from Ehrenberg to the present time, in which the vagueness and inexactitude of our knowledge of these organs is shown, the author takes up, one by one, the various phases which they assume throughout the whole class; commencing with *Brachionus*, in which they appear in the highest state of development. Their form in this genus is therefore taken as the standard of comparison.

The hemispherical bulb, which is so conspicuous in *B. amphicerus*, lying across the breast, and containing organs which work vigorously against each other, has long been recognized as an organ of manducation: it has been called the gizzard; but the author proposes to